$$R_1$$
 $R_6$ 
 $R_5$ 
 $R_6$ 
 $R_6$ 
 $R_8$ 
 $R_4$ 
 $R_8$ 
 $R_2$ 
 $R_8$ 

wherein

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently hydrogen, hydroxy,  $OR_9$ ,  $OC(O)R_9$ ,  $OS(O)R_9$ , alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro, or halo; and

R<sub>9</sub> is alkyl, haloalkyl, aryl, arylalkyl or alkylaryl;

in high to quantitative yield and without the need for chromatographic purification; comprising the step of hydrogenating a compound of formula I

$$\begin{array}{c|c}
R_1 & C & R_8 \\
R_6 & R_5 & C & R_3
\end{array}$$

$$\begin{array}{c|c}
R_4 & C & C & C & C \\
R_5 & C & R_3 & R_2
\end{array}$$

wherein

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$  and  $R_9$  are as defined above;

to prepare a compound of formula II; and

wherein the hydrogenation step is performed with hydrogen in the presence of at least one reduction catalyst and at least one solvent.

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- 4. (Amended) A method of claim 1, wherein the at least one reduction catalyst is selected from palladium on activated carbon, palladium on barium sulfate, alumina powder, and platinum (IV) oxide.
- (Amended) A method of claim 4, wherein the at least one reduction catalyst is about
   10% palladium on activated carbon.
- 6. (Amended) A method of claim 4, wherein the at least one reduction catalyst is about 5% palladium on activated carbon.
- (Amended) A method of claim 1, wherein the at least one solvent is selected from a
   C<sub>1</sub>-C<sub>8</sub> alcohol, an alkyl acetate, and a C<sub>1</sub>-C<sub>3</sub> carboxylic acid.
- (Amended) A method of claim 7, wherein the at least one solvent is absolute methanol, absolute ethanol, or absolute ethyl acetate.
- 9. (Amended) A method of claim 8, wherein the at least one solvent is absolute methanol.

Please add new claims 47 to 71 as follows:

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- 47. (New) A method of claim 4, wherein the at least one reduction catalyst is palladium on alumina powder.
- 48. (New) A method of claim 8, wherein the at least one solvent is absolute ethanol.
- 49. (New) A method of claim 8, wherein the at least one solvent is absolute ethyl acetate.
- 50. (New) A method of claim 7, wherein the at least one solvent further includes a C<sub>1</sub>-C<sub>3</sub> carboxylic acid.
- 51. (New) A method of claim 1, wherein any free hydroxy substituents R<sub>1</sub>-R<sub>8</sub> of the compound of formula I are first protected as acetoxy derivatives prior to the hydrogenation step.
- 52. (New) A method of claim 1, wherein the compound of formula I is diacetoxy daidzein.
- 53. (New) A method of claim 1, wherein the yield of the compound of formula II is from about 83% to quantitative.
- 54. (New) A method of claim 1, wherein the compound of formula II is a mixture of cis- and trans-isomers.

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- 55. (New) A method of claim 1, wherein the compound of formula II is the cis-isomer.
- 56. (New) A method of claim 1, wherein kilogram quantities of the compound of formula II are prepared.
- 57. (New) A compound of formula II

$$\begin{array}{c|c} R_1 & R_7 \\ \hline R_6 & R_5 & OH \\ \hline R_8 & R_2 \\ \hline \end{array} \qquad \qquad \text{(II)}$$

wherein

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$  and  $R_8$  are independently hydrogen, hydroxy,  $OR_9$ ,  $OC(O)R_9$ ,  $OS(O)R_9$ , alkyl, haloalkyl, aryl, arylalkyl, thio, alkylthio, amino, alkylamino, dialkylamino, nitro, or halo; and

R<sub>9</sub> is alkyl, haloalkyl, aryl, arylalkyl or alkylaryl; comprising the step of hydrogenating a compound of formula l

$$\begin{array}{c|c}
R_1 & R_7 \\
R_6 & R_5 & R_3
\end{array}$$

$$\begin{array}{c|c}
R_8 \\
R_4 & R_2
\end{array}$$

$$\begin{array}{c|c}
R_1 & R_2 \\
R_3 & R_2
\end{array}$$

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wherein

 $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$  and  $R_9$  are as defined above;

to prepare a compound of formula II; and

wherein the hydrogenation step is performed with hydrogen in the presence of at least one reduction catalyst and at least one solvent.

- 58. (New) The compound of claim 57, wherein the at least one reduction catalyst is selected from palladium on activated carbon, palladium on barium sulfate, palladium on alumina powder, and platinum(IV)oxide.
- 59. (New) The compound of claim 58, wherein the at least one reduction catalyst is about 5% palladium on activated carbon.
- 60. (New) The compound of claim 58, wherein the at least one reduction catalyst is about 10% palladium on activated carbon.
- 61. (New) The compound of claim 58, wherein the at least one reduction catalyst is palladium on alumina powder.
- 62. (New) The compound of claim 57, wherein the at least one solvent is a pharmaceutically acceptable solvent selected from a C<sub>1</sub>-C<sub>6</sub> alcohol, a C<sub>1</sub>-C<sub>6</sub> alkyl acetate, and a C<sub>1</sub>-C<sub>3</sub> carboxylic acid.

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- 63. (New) The compound of claim 62, wherein the at least one solvent is absolute methanol, absolute ethanol or absolute ethyl acetate.
- 64. (New) The compound of claim 63, wherein the at least one solvent is absolute methanol.
- 65. (New ) The compound of claim 63, wherein the at least one solvent is absolute ethanol.
- 66. (New) The compound of claim 63, wherein the at least one solvent is absolute ethyl acetate.
- 67. (New) The compound of claim 62, wherein the solvent further includes a C<sub>1</sub>-C<sub>3</sub> carboxylic acid.
- 68. (New) The compound of claim 57, wherein any free hydroxy substituents R<sub>1</sub>-R<sub>8</sub> of the compound of formula I are first protected as acetoxy derivatives prior to the hydrogenation step.
- 69. (New) The compound of claim 68, wherein the compound of formula I is diacetoxy daidzein.

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- 70. (New) The compound of claim 57, wherein the compound of formula II is a mixture of *cis* and *trans*-isomers.
- 71. (New) The compound of claim 57, wherein the compound of formula II is the *cis*-isomer.

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